+357 96 030922
info@marketpublishers.com

Biogas & Biomethane Market Forecasts to 2032 – Global Analysis By Feedstock (Agricultural Residues & Energy Crops, Wastewater Sludge, Animal Manure, Food & Industrial Waste, and Municipal Solid Waste (MSW)), Technology, Application, End User and By Geography

https://marketpublishers.com/r/B77F11BCD28DEN.html
Date: December 2025
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: B77F11BCD28DEN

Abstracts

According to Stratistics MRC, the Global Biogas & Biomethane Market is accounted for $89443.05 million in 2025 and is expected to reach $115344.77 million by 2032 growing at a CAGR of 3.7% during the forecast period. Biogas and biomethane are sustainable energy sources formed through anaerobic digestion of organic wastes like crop residues, food waste, and wastewater sludge. Raw biogas consists mainly of methane and carbon dioxide and can be applied in power, heat, and cooking applications. After upgrading to eliminate contaminants and boost methane levels, biogas becomes biomethane, a refined renewable gas compatible with natural gas networks and vehicle fuel systems. This contributes to lower emissions and advances environmentally friendly energy solutions.

Market Dynamics:

Driver:

Decarbonization goals and GHG emission reduction

Governments are encouraging low-carbon alternatives as industries seek to minimize greenhouse gas footprints. Biogas and biomethane provide a renewable substitute for fossil fuels, supporting climate strategies across power, heat, and mobility sectors.

+357 96 030922
info@marketpublishers.com

Policy incentives, carbon pricing mechanisms, and renewable gas mandates are accelerating market adoption. Large energy users are increasingly integrating biomethane to meet sustainability pledges. As emission reduction targets tighten, demand for renewable gases continues to strengthen.

Restraint:

Permitting delays and regulatory fragmentation

Inconsistent regulations across regions are slowing the development of new biogas upgrading and production facilities. Lengthy permitting procedures create barriers for investors and project developers. Divergent standards for grid injection, waste handling, and certification complicate project execution. These hurdles often increase capital costs and extend implementation timelines. Smaller operators struggle the most due to administrative complexity.

Opportunity:

Technological advancements in upgrading and efficiency

Innovations in digestion systems and upgrading technologies are expanding the commercial potential of biogas and biomethane. Advanced membrane systems, cryogenic upgrades, and biological methanation are improving output quality and plant efficiency. These improvements reduce operational costs and enable greater scalability. Digital monitoring and automation are further optimizing plant performance. Enhanced feedstock preprocessing is increasing gas yield across agricultural, industrial, and municipal sources. As technology matures, more profitable and environmentally advanced projects are emerging worldwide.

Threat:

Fluctuating energy and certificate prices

Volatile natural gas prices and shifting renewable certificate values create financial uncertainty for producers. Price swings can weaken long-term project returns and investment confidence. Biomethane operators depend heavily on predictable incentives and stable market conditions. Sudden changes in energy markets may diminish the competitiveness of renewable gases. Certificate market oversupply or policy alterations can also reduce revenue streams. These economic fluctuations pose ongoing risks to

+357 96 030922
info@marketpublishers.com

market stability.

Covid-19 Impact:

The pandemic initially disrupted project timelines due to supply chain delays and labor constraints. However, interest in resilient and decentralized energy systems increased during the crisis. Many governments integrated renewable gas investments into post-pandemic recovery programs. Demand for sustainable waste management solutions also strengthened biogas adoption. Remote monitoring tools gained traction as operators sought operational continuity. Overall, Covid-19 highlighted the strategic value of circular and renewable energy systems.

The anaerobic digestion segment is expected to be the largest during the forecast period

The anaerobic digestion segment is expected to account for the largest market share during the forecast period, due to its widespread use across multiple feedstock types. Its compatibility with agricultural residues, organic waste, and wastewater solids enhances deployment potential. Established technological maturity makes digestion systems cost-effective for both small and large facilities. Governments actively support anaerobic digestion as part of waste-to-energy and circular economy initiatives. Its ability to produce digestate for soil improvement adds further value.

The transportation segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the transportation segment is predicted to witness the highest growth rate, as biomethane gains traction as a clean vehicle fuel. Increasing adoption of renewable natural gas (RNG) in trucks, buses, and fleets is boosting market demand. Governments are providing incentives for low-carbon mobility and establishing emission-reduction mandates. Transport operators are turning to biomethane to meet sustainability goals without overhauling existing engine infrastructure. Rising interest in LNG and CNG alternatives further fuels segment expansion.

Region with largest share:

During the forecast period, the Europe region is expected to hold the largest market share, due to strong policy support and mature infrastructure. The region has well-established waste management systems that feed biogas production. Ambitious climate

+357 96 030922
info@marketpublishers.com

regulations and renewable gas targets are accelerating biomethane deployment. Subsidies, green gas certificates, and binding emissions frameworks continue to drive investment. Countries like Germany, France, and Denmark are expanding upgrading capacities rapidly.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by rapid agricultural waste generation and expanding energy needs. Countries such as China, India, and Japan are investing heavily in waste-to-energy programs. Growing environmental concerns and urbanization are increasing the demand for sustainable energy solutions. Governments are offering incentives for decentralized biogas systems and biomethane infrastructure. Local technology providers and international developers are actively entering the market.

Key players in the market

Some of the key players in Biogas & Biomethane Market include Engie SA, MT-Energie, Veolia Environnement, BTS Biogas, Suez SA, AB Holding SpA, Gasum Oy, Vanzetti Engineering, EnviTec Biogas AG, TotalEnergies, PlanET Biogas Group, Xergi A/S, Schmack Biogas GmbH, WELTEC Biopower GmbH, and Future Biogas.

Key Developments:

In October 2025, ENGIE announces that it has entered into a PPA with Meta for its new Swenson Ranch solar farm, located in Stonewall County, Texas. Scheduled for commissioning in 2027, this 600 MW project will be ENGIE's largest asset in the United States, where the Group has more than 11 GW of capacity in operation or under construction.

In July 2025, SUEZ and RATP Group announce the signing of a long-term renewable energy purchase agreement (PPA). Under this agreement, SUEZ will supply RATP Group the world's third-largest urban transport operator with almost 100 GWh of renewable electricity per year, generated from the recovery of household waste. The contract will last for a maximum of 16 years.

Feedstock Covered:

Agricultural Residues & Energy Crops

+357 96 030922
info@marketpublishers.com

Wastewater Sludge

Animal Manure

Food & Industrial Waste

Municipal Solid Waste (MSW)

Technologies Covered:

Anaerobic Digestion

Gas Upgrading

Landfill Gas Recovery

Applications Covered:

Power Generation

Transportation Fuel

Residential & Commercial Heating/Cooking

Industrial Use

Other Applications

End Users Covered:

Energy & Utilities

Transportation

Residential & Commercial

+357 96 030922
info@marketpublishers.com

- Industrial & Manufacturing
- Other End Users

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK
  - Italy
  - France
  - Spain
  - Rest of Europe
- Asia Pacific
  - Japan
  - China
  - India
  - Australia

+357 96 030922
info@marketpublishers.com

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends

+357 96 030922
info@marketpublishers.com

- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Biogas & Biomethane Market Forecasts to 2032 – Global Analysis By Feedstock (Agricultural Residues & Energy Crops, Wastewater Sludge, Animal Manure, Food & Industrial Waste, and Municipal Solid Waste (MSW)), Technology, Application, End User and By Geography

Product link: https://marketpublishers.com/r/B77F11BCD28DEN.html

Price: US$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/B77F11BCD28DEN.html